

GYNECOLOGY

UNDER THE CHARGE OF

JOHN G. CLARK, M.D.,

PROFESSOR OF GYNECOLOGY IN THE UNIVERSITY OF PENNSYLVANIA, PHILADELPHIA.

Bulgarian Bacillus in the Treatment of Alkaline Cystitis and Pyelitis.

—A very favorable report is given by HAGNER (*Surg., Gynec., and Obst.*, 1915, xxi, 95) on a method of treatment originally suggested by Caulk for these very troublesome conditions by means of instillations of a suspension of lactic acid bacilli. Numerous attempts have been made in the past to render the urine acid in cases of severe cystitis associated with alkalinity of the urine, but usually without much success. Chemical substances injected are soon washed out, and attempts to inoculate the *Bacillus coli communis* have usually resulted in failure, this organism being overgrown by the *proteus vulgaris*, which is usually present in these cases. The lactic acid bacillus is, however, as is well known, extremely resistant, and is itself able to overgrow and destroy many other types of organisms. It was upon this theory that Caulk originally suggested its use in the treatment of alkaline cystitis. Hagner has tried it in a number of cases of bad cystitis, and in one of a right pyelitis with alkaline urine, and has been exceedingly pleased with his results. The method of application is exceedingly simple. The bladder is first irrigated with sterile water, as any antiseptic solution might interfere with the growth of the bacillus; three or four of the commercial bulgarian bacillus tablets are then dissolved in an ounce of sterile water, well stirred, and injected into the bladder, the patient being told to retain the fluid as long as possible. This process repeated for three days will usually, the author says, transform an offensive alkaline urine into an acid one, with corresponding rapid amelioration of symptoms. In the pyelitis case the infecting organism seemed to be the *Staphylococcus aureus*, purulent alkaline urine, containing this in pure culture being obtained from the right kidney, while that from the left was but faintly alkaline, and contained but a small amount of pus. The right kidney pelvis was injected with 7 c.c. of 4 per cent. silver nitrate solution, but two days later the urine still contained pus and was alkaline. Two bulgarius tablets were then dissolved in 10 c.c. of sterile water and injected through the ureteral catheter. At the end of thirty-six hours the patient had a chill, and rise of temperature to 103.5° but dropping to normal in twelve hours. The following day the urine was acid; two further injections were given into the bladder, but not into the kidney; after three months the urine remains clear, acid, and free from pus.

Thorium, a New Agent for Pyelography.—A few months ago we spoke of the desirability of obtaining some substance capable of throwing a Roentgen-ray shadow when injected into the kidney pelvis, and yet perfectly harmless under all circumstances to the renal tissue, conditions that are not entirely fulfilled by collargol, and similar

preparations which are chiefly used for this purpose at present. From the Urologic Department of Johns Hopkins there has recently come a report by BURNS (*Jour. Am. Med. Assn.*, 1915, lxiv, 2126) on the use of thorium for pyelographic work. Thus getting away entirely from the silver preparations, some form or another of which have been used by most previous workers. Thorium nitrate, the author says, dissolves readily in water, giving a clear markedly acid solution, which is opaque to the Roentgen rays, but is too irritant for use in the bladder. The neutral solution of thorium nitrate and sodium citrate, however, seems to possess the important characteristics of being non-toxic, non-irritant, and fluid, so as immediately to escape from the ureters and bladder, while at the same time casting a clear, distinct Roentgen shadow. It is perfectly clear to transmitted light, possessing in large volume a faint yellowish tinge. It is much cheaper than the silver preparations, an advantage when it must be used in large quantities for bladder pictures or large hydronephroses. The solution now being used is made as follows: "Ten grams of thorium nitrate are dissolved in as little distilled water as possible, to this solution, kept hot on a water or steam bath, are added 30 c.c. of a 50 per cent. solution of sodium citrate, the additions being made in small quantities, and care being taken to shake the solution thoroughly after each addition. At first after the addition of the citrate solution, a white gummy precipitate is formed which later becomes granular, and finally dissolves on the addition of all the citrate solution. This solution is then made neutral to litmus by the careful addition of a normal solution of sodium hydroxide, and made up to 100 c.c. with distilled water. On filtration, a clear, limpid solution is obtained, which, when sterilized, either by boiling or steam under pressure, is ready for use. The stability of the solution is not affected in the least by sterilization." Burns states that this solution is now being used in all their suitable urologic cases, and appears to be perfectly innocuous. It gives excellent shadows, as the photographs accompanying the article testify.

Urinary Incontinence in the Female due to Diverticulum of the Urethra.—An exceedingly interesting case of this rather unusual condition has recently been reported by JARECKI (*Ztschr. f. urol. Chir.*, 1915, iii, 241). The patient was a girl, aged twenty-one years, a nullipara, who had complained of incontinence since early childhood. The incontinence was not complete, but occurred on laughing, coughing, or making sudden movements of any kind, particularly if the bladder was at all full. Even at night, however, during deep sleep involuntary micturition often occurred. The act of voiding was never accompanied by burning or pain. Cystoscopic examination revealed what appeared at first to be a perfectly normal bladder, with a good sphincteric ring. Just as the examiner was about to conclude that the findings from this stand-point were entirely negative, however, the sphincter was seen in the cystoscope to dilate appreciably, so that the instrument could be drawn out into a distinct saccular dilatation of the proximal urethra, or "Vorblase," as the author calls it. This was at least the caliber of the thumb, lined with smooth mucosa, but with a somewhat trabeculated wall. It was possible to examine this sacculatation only for a moment, the walls almost immediately falling